

IN THE CLAIMS

Please amend the claims to read as indicated herein.

1. (currently amended) A method for correcting a measured signal transmitted through a system, ~~the said~~ method comprising:

sampling ~~the said~~ measured signal to yield a sampled signal ~~sequence, sequence;~~

~~providing a signal series as a plurality of the sampled signal sequences put together successively,~~
reproducing said sampled signal sequence to yield a plurality of copies of said sampled signal

sequence;

appending said plurality of copies to one another to yield a signal series;

windowing ~~the said~~ signal series with a window function, to yield a windowed signal series; and

recalculating a corrected measured signal from ~~the said~~ windowed signal series using information
about ~~the a~~ frequency-dependency of ~~the said~~ system.

2. (currently amended) The method of claim 1, wherein said recalculating a corrected measured signal from ~~the said~~ windowed signal further comprises:

transforming ~~the said~~ windowed signal series from a time domain into a frequency domain, to
yield a transformed signal series;

modifying ~~the said~~ transformed signal series with a transfer function as a function of frequency of
~~the said~~ system, ~~preferably by multiplying the transformed signal series with the inverse~~
~~transfer function of the system, to yield a modified transformed signal series;~~

re-transforming ~~the said~~ modified transformed signal series back from ~~the said~~ frequency domain
into ~~the said~~ time domain, to yield a re-transformed signal series; and

receiving ~~the said~~ corrected measured signal from ~~the said~~ re-transformed signal series.

3. (currently amended) The method of claim 1, wherein said recalculating a corrected measured signal from ~~the said~~ windowed signal further comprises modifying ~~the said~~ corrected measured signal with a function inverse to ~~the said~~ window function.

4. (currently amended) The method of claim 2, wherein said receiving ~~the said~~ corrected measured signal from ~~the said~~ re-transformed signal series further comprises selecting a corrected

signal sequence from said re-transformed signal series substantially corresponding to ~~the~~ said sampled signal sequence.

5. (currently amended) The method of claim 4, wherein ~~the~~ said selected corrected signal sequence is selected substantially from a middle range of ~~the~~ said re-transformed signal series.

6. (currently amended) The method according to claim 1, wherein said sampling ~~the~~ said measured signal is executed by a measuring device at ~~the~~ a highest accuracy provided by said measuring device.

7. (currently amended) A method for correcting a measured signal transmitted through a system having a transfer function as a function of frequency, ~~the~~ said method comprising:
sampling ~~the~~ said measured signal to yield a sampled signal ~~sequence, sequence;~~
~~providing a signal series as a plurality of the sampled signal sequences put together successively,~~
reproducing said sampled signal sequence to yield a plurality of copies of said sampled signal
sequence;
appending said plurality of copies to one another to yield a signal series;
~~windowing the~~ said signal series with a window ~~function, function to~~ yield a windowed signal
series;
~~transforming the~~ said windowed signal series from a time domain into a frequency domain, to
yield a transformed signal series;
~~modifying the~~ said transformed signal series with ~~the~~ said transfer function of ~~the~~ said system,
~~preferably by multiplying the transformed signal series with the inverse transfer function of~~
~~the system, to yield a modified transformed signal series;~~
~~re-transforming the~~ said modified transformed signal series back from ~~the~~ said frequency domain
into the said time domain, to yield a re-transformed signal series; and
receiving a corrected measured signal from ~~the~~ said re-transformed signal series.

8. (currently amended) A method for providing a measured signal for further processing, ~~the~~ said method comprising:

sampling ~~the~~ said measured signal to yield a sampled signal sequence, ~~and;~~
~~providing a signal series as a plurality of the sampled signal sequences put together successively~~

reproducing said sampled signal sequence to yield a plurality of copies of said sampled signal sequence;

appending said plurality of copies to one another to yield a signal series; and

processing said signal series to determine a characteristic of said measured signal.

9. (currently amended) A software program storable on a data carrier, for executing a method when operated in a computer system, said method comprising:

~~sampling the said measured signal to yield a sampled signal sequence, sequence;~~

~~providing a signal series as a plurality of the sampled signal sequences put together successively,~~

reproducing said sampled signal sequence to yield a plurality of copies of said sampled signal sequence;

appending said plurality of copies to one another to yield a signal series;

~~windowing the said signal series with a window function, to yield a windowed signal series; and~~

~~recalculating a corrected measured signal from the said windowed signal series using information about the a frequency-dependency of the said system.~~

10. (currently amended) An apparatus for executing a method for correcting a measured signal, said apparatus comprising:

~~a measuring sampling device for sampling the said measured signal to yield a sampled signal sequence, sequence;~~

~~a signal multiplication unit for providing a signal series as a plurality of the sampled signal sequences put together successively, reproducing said sampled signal sequence to yield a plurality of copies of said sampled signal sequence, and appending said plurality of copies to one another to yield a signal series;~~

~~a device for performing windowing functions for windowing the signal series with a window function, to yield a windowed signal series; and~~

~~a recalculation unit for recalculating a corrected measured signal from the said windowed signal series using information about the a frequency-dependency of the said system.~~

11. (currently amended) An apparatus for correcting a measured signal transmitted through a system comprising:

~~means for sampling the said measured signal to yield a sampled signal sequence, sequence;~~

~~means for providing a signal series as a plurality of the sampled signal sequences put together successively;~~

means for reproducing said sampled signal sequence to yield a plurality of copies of said sampled signal sequence;

means for appending said plurality of copies to one another to yield a signal series;

means for windowing the said signal series with a window function, to yield a windowed signal series; and

means for recalculating a corrected measured signal from the said windowed signal series using information about the a frequency-dependency of the said system.

12. (previously presented) The method of claim 1, wherein said measured signal is a high speed digital pulse.

13. (previously presented) The method of claim 7, wherein said measured signal is a high speed digital pulse.

14. (previously presented) The method of claim 8, wherein said measured signal is a high speed digital pulse.

15. (previously presented) The apparatus of claim 11, wherein said measured signal is a high speed digital pulse.